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World Data Center A For Rockets and Satellites

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DOCUMENTATION FOR THE
MACHINE-READABLE VERSION OF THE
PHOTOMETRIC DATA FOR NEARBY STARS



APRIL 1982

DOCUMENTATION FOR THE MACHINE-READABLE VERSION
OF
PHOTOMETRIC DATA FOR THE NEARBY STARS

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April 1982

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SECTION 1 - INTRODUCTION

The data file of *Photometric Data for the Nearby Stars* (Hauck and Mermilliod 1981) contains a list of all photometric systems (of those considered) in which each star in the catalogue of Gliese (1969) has been measured. The file is a subset of a much larger and more comprehensive compilation, currently in preparation at the Institut d'Astronomie, Université de Lausanne, which lists all measured photoelectric photometric systems for any star that has been measured in at least one photoelectric system. In addition to the photometric system identifications, the data file documented here contains cross identifications to the Henry Draper and Durchmusterung catalogues and apparent visual magnitudes.

This document describes the machine-readable data file available from the Astronomical Data Center at NASA/GSFC. The data and associated files are identical to those distributed from the Centre de Données Stellaires, Strasbourg, except for a few minor text corrections to the description and photometric systems files. A copy of this document should be supplied to any recipients of secondary copies of these files.

SOURCE REFERENCE

Hauck, B. and Mermilliod, M. 1981, *Inform. Bull. CDS*, No. 21, p. 35.

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SECTION 2 - TAPE CONTENTS

Descriptions of the contents of the four files of the computerized version of the *Photometric Data for the Nearby Stars* compilation are given in Tables 1 through 4. Files 1, 3 and 4 are information files consisting of text and will normally be merely printed and used for reference. The byte-by-byte description of the data file (Table 2) lists additional information such as units and suggested FORTRAN format specifications to assist the user in processing the data. Since data fields containing no data are blank, a field which can contain valid zero values, such as the visual magnitude, must be buffered in (or read as character data) and checked for blanks before internal conversion to binary for search purposes.

Table 1. Tape Contents. *Photometric Data for the Nearby Stars*, Description.

Byte(s)	Description
1- 7	Number assigned to the catalogue by the Centre de Données Stellaires, Strasbourg. The four-digit number is followed by the character "A" (first file of the catalogue) and the two-digit year of this edition. All records in this file contain 2074A81.
8	Blank
9-88	Description of the catalogue in free text format (upper case alphanumeric).

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Alternate format specifications in Table 2 are given in parentheses.

Table 2. Tape Contents. Photometric Data for the Nearby Stars, Data File.

Byte(s)	Units	Suggested Format	Description
1- 7	---	A7	See bytes 1-7 of Table 1. All records in this file contain 2074B81.
8- 9	---	2X	Blank
10	---	A1	An asterisk (*) if the star has not been measured in any photometric system; otherwise blank.
11- 12	---	2X	Blank
13- 17	---	F5.1	Number in Gliese (1969) catalogue.
18	---	1X	Blank
19- 21	---	A3	Component identifications for multiple systems according to Gliese's catalogue.
22	---	1X	Blank
23- 28	---	I6 (A6)	Henry Draper (HD) Catalogue number.
29- 30	---	2X	Blank
31- 39	---	9A1 (A9)	Durchmusterung (DM) number. Zone sign in byte 31, zone in bytes 32-33, number in bytes 34-39.
40- 41	---	2X	Blank
42	---	A1	Remark concerning multiplicity in the photometric catalogues (1, 2, ... - components of multiple systems; D - > 1 component measured together).
43	---	A1	"V" if variable in photometric catalogues.
44	---	1X	Blank
45- 49	mag	F5.2	Apparent visual magnitude taken from Grenon and Rufener (1981).

Table 2. (continued)

Byte(s)	Units	Suggested Format	Description
50- 51	---	2X	Blank
52-136	---	(I2, 1X)	Codes for photometric systems defined in file 3. Each code is given as a 2-byte integer number (right justified) followed by a single blank byte.

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Table 3. Tape Contents. Photometric Data for the Nearby Stars, Photometric Systems File.

Byte(s)	Suggested Format	Description
1- 7	A7 (7A1)	See bytes 1-7 of Table 1. All records in this file contain 2074C81.
8- 9	2X	Blank
10-11	I2	Photometric system code referred to in data file.
12	1X	Blank
13-22	A10 (10A1)	Photometric system identification.
23	1X	Blank
24-88	65A1	or equivalent. References for sources of photometric data.

Table 4. Tape Contents. Photometric Data for the Nearby Stars, References

Byte(s)	Description
1- 7	See bytes 1-7 of Table 1. All records in this file contain 2074D81.
8- 9	Blank
10-88	References cited in bytes 24-88 of file 3.

SECTION 3 - TAPE CHARACTERISTICS

The information contained in Table 5 is sufficient for a user to describe the indigenous characteristics of the *Photometric Data for the Nearby Stars* files to a computer. Information easily varied from installation to installation, such as block size (physical record length), blocking factor (number of logical records per physical record), total number of blocks, tape density, and internal coding (EBCDIC, ASCII, etc.) is not included. These parameters should always be transmitted if secondary copies of the catalogue are supplied to other users or installations. Parameters relating to the four files on the magnetic tape are separated by commas.

Table 5. Tape Characteristics. *Photometric Data for the Nearby Stars*.

NUMBER OF FILES	4
LOGICAL RECORD LENGTH	88, 136, 88, 88
RECORD FORMAT	FB*
TOTAL NUMBER OF LOGICAL RECORDS	34, 1768, 37, 18

* Fixed block length (last block may be short)

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SECTION 4 - REMARKS MODIFICATIONS, AND REFERENCES

The *Photometric Data for the Nearby Stars* catalogue was received on magnetic tape from the Centre de Données Stellaires (CDS), Strasbourg on 12 February 1982. The files were transferred to disk storage where they were examined and a few minor editing corrections made to the first file; they were then transferred back to magnetic tape.

REFERENCES

Gliese, W. 1969, *Catalogue of Nearby Stars*, Veröff. Astron. Rechen-Inst. Heidelberg, No. 22.

Grenon, M. and Rufener, F. 1981, *Astron. Astrophys. Suppl.* 46, 25.

Hauck, B. and Mermilliod, M. 1981, *Inform. Bull. CDS*, No. 21, p. 35.

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SECTION 3 - SAMPLE LISTING

The sample listings given on the following pages contain logical data records from each file of the catalogue exactly as they are recorded on the magnetic tape. A sample listing is shown for each file; for files 1, 3 and 4, there are few enough records to allow complete files to be shown on the sample listings. Since the logical record length of the data file is longer than 115 bytes, the remainder of each record (bytes 116-136) is printed in the following row. (Bytes 116-136 are blank for the sample records from the beginning and end of the file, but this is not always the case.) The beginning of each record and the bytes within the record are indicated by the column heading index across the top of each page (digits read vertically).

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RECORDS 1 TO 17

TAPE FILE 47

RECORD LENGTH DU BYTES

INPUT VOL. SER WTS006

13
 MM
 MIX
 UDE
 LAD
 OEN
 CHI

RECORD 1 2074A81 PHOTONEURIC DATA FOR THE HEARDY STARS

RECORD 2 2074181 .

REC'D 3 2074 AB1

RECORD 4 2074A81 .

RECORD 5 2074291 B

RECORD 9 2074X31 1

RECORD 7 2034801 C

RECORD 8 2074X81

RECORD 9 2074A81 .

10 2074A81 W
33 REC'D

RECORD 11 207481 I

RECORD 12 2074X81 T

RECORD 13 2074A81

14 2074A81 :

RECORDED 51 JUL 15 1964

RECORDED 16 2074ARI E

RECORD 17 2074A81

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[illegible]

TAPE FILE 47

RECORD LENGTH 88 BYTES

INPT VOLPER HTS:006

12
 MN
 HIX
 UDE
 LAD
 OPM
 CHY

RECORD 18 2074A81 .
RECORD 19 2074A81 1. GLIESE NUMBER
RECORD 20 2074A81 2. REMARK CONCERNING MULTIPLICITY FOLLOWING GLIESE CATALOGUE
RECORD 21 2074A81 3. HD NUMBER
RECORD 22 2074A81 4. DM NUMBER
RECORD 23 2074A81 5. REMARK CONCERNING MULTIPLICITY IN PHOTOMETRIC CATALOGUES
RECORD 24 2074A81 6. APPARENT VISUAL MAGNITUDE
RECORD 25 2074A81 7. AND FOLLOWING - CODE NUMBERS OF SYSTEMS IN WHICH THE STAR IS MEASURED
RECORD 26 2074A81 (SEE FILE J)
RECORD 27 2074A81 .
RECORD 28 2074A81 .
RECORD 29 2074A81 THIS FILE CONTAINS 1768 RECORDS.
RECORD 30 2074A81 .
RECORD 31 2074A81 FILE 3 (37 RECORDS) CONTAINS THE CODE NUMBERS USED TO IDENTIFY
RECORD 32 2074A81 THE PHOTOMETRIC SYSTEMS
RECORD 33 2074A81 .
RECORD 34 2074A81 FILE 4 (18 RECORDS) CONTAINS THE REFERENCES FOR FILE 3

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RECORDS 1 TO 61

Tape File 49

RECORD LENGTH 80 BYTES

INPUT VOLSER WTS006

C H I L
U E M
L A D
U D E X
M I X
N N G
G

[illegible]

RECORD	1	2074C81	1	UBV	(NICOLET 1978 ; HERRILLIOD J.C.L. 1980)
RECORD	2	2074C81	2	UBV CAPE	(NICOLET 1975)
RECORD	3	2074C81	4	UVBY HETA	(HAUCK AND HERRILLIOD M. 1980)
RECORD	4	2074C81	5	RQ2NMLK	BORGHAN (MAGHENAT 1977B)
RECORD	5	2074C81	6	UVBGRI	STEBBINS, WHITFORD (NICOLLIER AND HAUCK 1978)
RECORD	6	2074C81	7	UVDY	KRUSZEWSKI (MAGHENAT 1977B)
RECORD	7	2074C81	8	UBVRIJKLAN	JOHNSON (MOREL AND MAGHENAT 1978)
RECORD	8	2074C81	9	UBF B20	SANDAGE, SHITH (MAGHENAT 1977A)
RECORD	9	2074C81	10	RE02JI	ARGUE (MAGHENAT 1977B)
RECORD	10	2074C81	11	WUUVL	WALRAVEN (PYTHON 1979)
RECORD	11	2074C81	12	DDO	(MEYLAN G. 1981)
RECORD	12	2074C81	13	UBVBI02VIG	GENEVA (RUFENER 1981)
RECORD	13	2074C81	14	UBV	EGGEN (HERRILLIOD J.C.L. AND HERRILLIOD M. 1981)
RECORD	14	2074C81	15	102,65,62	EGGEN (MAGHENAT 1977B)
RECORD	15	2074C81	16	UVDY	EGGEN (HERRILLIOD J.C.L. AND HERRILLIOD M. 1981)
RECORD	16	2074C81	17	RI	EGGEN (JASNIEWICZ 1981)
RECORD	17	2074C81	18	13-COLOR	(MAGHENAT 1977B)
RECORD	18	2074C81	19	RI	KROM (JASNIEWICZ 1981)
RECORD	19	2074C81	20	GKAPU	GYLDENKERNE (MAGHENAT 1977B)

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RECORD	20	2074C81	21	UPXVVT2	VILLMIUS (NORTH 1900)
RECORD	21	2074C81	22	12-COLOR	WOOD (MAGNENAT 1977B)
RECORD	22	2074C81	24	UBYGRI	BAUNG (MAGNENAT 1977B)
RECORD	23	2074C81	25	JHK	BAUNG (MAGNENAT 1977B)
RECORD	24	2074C81	26	CL...CB	BARBIER, HORGULEFF (HORGULEFF AND GERALDI 1975)
RECORD	25	2074C81	27	DAO	WALKER ET AL. (MAGNENAT 1977B)
RECORD	26	2074C81	28	YB1B2B3	WILLSTROP (MAGNENAT 1977B)
RECORD	27	2074C81	29	UV B3 R	TIPPT (MAGNENAT 1977B)
RECORD	28	2074C81	30	78...105	LOCKWOOD (HERRILLIOD J.CL. AND HERRILLIOD M. 1981)
RECORD	29	2074C81	31	PV	EGGEN (MAGNENAT 1977B)
RECORD	30	2074C81	32	BCD	BARBIER, CHALONGE AND DIVAM (MAGNENAT 1975)
RECORD	31	2074C81	33	GMB-V	MINER (MAGNENAT 1977B)
RECORD	32	2074C81	34	10-COLOR	FADER (MAGNENAT 1977B)
RECORD	33	2074C81	36	CELESCOPE	(DEUTSCHMAN AND DAVIS 1976)
RECORD	34	2074C81	37	UBV IYZ	(HERRILLIOD J.CL. AND HERRILLIOD M. 1981)
RECORD	35	2074C81	38	UVGR	THUAN, GUNN (HERRILLIOD J.CL. AND HERRILLIOD M. 1981)
RECORD	36	2074C81	45	CHT112V	CANTERNA (HERRILLIOD J.CL. AND HERRILLIOD M. 1981)
RECORD	37	2074C81	54	RI	COUSINS (1980)

